Awards and Recognitions

Summit Award
For an unprecedented fourth year in a row, NEBH won the Summit Award, a prestigious national award for exceptional patient satisfaction. The award recognizes top-performing hospitals that sustain the highest level of national performance, ranking in the 95th percentile or greater, in patient satisfaction for at least three consecutive years. The Baptist has ranked in the 99th percentile nationally for patient satisfaction since 2008. The first inpatient hospital in Massachusetts to receive the Summit Award, NEBH is the only Massachusetts hospital to receive the award four times and the only hospital in the state to earn the award for inpatient medical and surgical care this year.

Joint Commission “Top Performer”
New England Baptist was one of an elite group of hospitals named in the first Top Performers in Key Quality Measures™ report by the Joint Commission, a not-for-profit organization that accredits and certifies more than 19,000 U.S. health care organizations. The Baptist was specifically recognized for outstanding performance in surgical infection prevention.

Thomson Reuters – 5 Best U.S. Health Systems
New England Baptist Hospital and 4 other hospitals, as part of CareGroup Healthcare System, have been named one of the 5 best large health systems in the United States, and one of the 15 best health systems overall, in the fourth annual Thomson Reuters study of hospital performance at more than 300 health systems. The CareGroup Hospitals—New England Baptist, Beth Israel Deaconess Medical Center, Beth Israel Deaconess Hospital-Needham and Mount Auburn Hospital—were recognized for clinical quality and efficiency, including lower rates of mortality and medical complications and improved patient safety. CareGroup is the only large health care system in New England to receive this award and one of only two national systems to win this award two years in a row.

U.S. News & World Report
New England Baptist was again recognized in U.S. News & World Report’s annual best hospital rankings. The Baptist was named in two categories: orthopedic surgery and neurology/neurosurgery. The magazine evaluated approximately 5,000 U.S. hospitals in order to rank the best in 16 adult specialties.

Boston Pilgrim Honor Roll
NEBH appears on the 2011 Honor Roll, which recognizes hospitals with performance in the top 25% of those measured nationally on a set of composite quality and patient experience measures. Honor roll hospitals are vigilant in measuring clinical quality, patient experience and patient safety.

New England Baptist Hospital is a regional and national center of excellence for orthopedic care. The hospital is a teaching affiliate of Tufts University School of Medicine and conducts teaching programs in collaboration with the Harvard School of Public Health and the Harvard School of Medicine.

The 2011 Annual Quality Report was produced by the Office of Public Affairs at New England Baptist Hospital.

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I am often asked by community leaders, business people, referring physicians, patients and their family members how New England Baptist Hospital is able to deliver on our promise of better outcomes with legendary service, at lower costs than our competitors. My answer is simple: “It is in the culture.” At the Baptist, doctors, nurses, therapists and support staff make painstaking efforts to produce the best possible outcome for the patient, supported by legendary personal service, in an efficient way.

We strive to always be better than we were yesterday, last week or last month. We wish to hold true to our promise of exceptional care, so we measure every aspect of our care process. We learn from these measures what needs to be changed and what we must do to become a national leader in quality, efficiency and service.

In the following pages, I hope you find that indeed there is a “Baptist Difference” in comparison to our national and regional peers. Our physicians are experts in their fields and because of that focused expertise, we are able to care for a high volume of patients, many of whom have very complex medical problems. Our programs to prevent infection, manage patients at high risk for falls, and prevent postoperative complications all contribute to our leadership position in quality. Our goal-oriented care protocols lead to a shorter length of stay, safer home care and decreased readmissions to the hospital. All of this effort contributes to lower overall costs of care.

You will also see by some of our measures that we are not perfect. Much work is ahead in order for us to earn the position of best in the nation, but we are working hard to get there. I am proud to lead an organization with such dedication and drive to deliver on the promise of exceptional care that every patient so deserves.

Trish Hannon
President and Chief Executive Officer
The goals New England Baptist Hospital set for 2011 were as lofty as its location overlooking the Longwood Medical Area—to provide the highest quality orthopedic and musculoskeletal care, exceptional outcomes and a superlative patient experience, all delivered at a reasonable price. The results have been outstanding: reducing the length of time patients stay in the hospital through better pain management, streamlining systems of care, achieving infection and readmission rates that are among the lowest in the country, and earning top marks for patient satisfaction.
During the year, the Baptist furthered its reputation as a national leader in providing comprehensive musculoskeletal care. “We’re focused on creating a system of care from prevention, education and wellness to tertiary level complex spine and joint surgery,” says Trish Hannon, president and chief executive officer. “We’re distinguished by our subspecialty expertise and experience, excellent outcomes, and highly personalized patient care.”

“We are a patient-centered institution with a strong focus on patient experience and outcomes,” adds John Richmond, MD, chair, department of orthopedic surgery. “We are focused on musculoskeletal care, which means we are able to increase our sophistication and expertise in what we do.”

The Baptist earned top recognition from insurers, business leaders, and government agencies. The Joint Commission, the major accreditation organization for health care organizations, named NEBH a “Top Performer on Key Quality Measures” for surgical care. And once again, U.S. News & World Report ranked the Baptist as one of the best hospitals in the nation for orthopedic surgery as well as neurology and neurosurgery, and more than 30 members of the medical staff were named top doctors by Boston Magazine.

“The national recognition we have received is an affirmation of what we are working so hard to accomplish—the very highest quality care,” says Richard Maloney, chair of the hospital’s board of trustees, noting the very collaborative effort between the board and management team. “Quality is embedded in the organization’s DNA.”

The Baptist is the largest orthopedic specialty provider in New England. To help address the growing demand for its orthopedic and neurosurgical services, the hospital added three new state-of-the-art operating rooms. Built with a $2 million gift from the Yawkey Foundation and named in honor of retired physician Russell S. Boles, Jr., MD, this new OR suite is designed for optimal patient safety and surgical efficiency.

“The national recognition we have received is an affirmation of what we are working so hard to accomplish—the very highest quality care.”

— Richard Maloney, chair of the hospital’s board of trustees

Orthopedics in Massachusetts

Discharges and Market Share

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Discharges</th>
<th>Market Share</th>
</tr>
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<tbody>
<tr>
<td>Mass. General</td>
<td>3,689</td>
<td>7.2%</td>
</tr>
<tr>
<td>NEBH</td>
<td>5,638</td>
<td>11%</td>
</tr>
<tr>
<td>Brigham &amp; Women’s</td>
<td>3,084</td>
<td>6.0%</td>
</tr>
<tr>
<td>Baystate Medical Center</td>
<td>2,772</td>
<td>5.4%</td>
</tr>
<tr>
<td>Beth Israel Deaconess</td>
<td>2,369</td>
<td>4.6%</td>
</tr>
<tr>
<td>Newton-Wellesley Hospital</td>
<td>1,950</td>
<td>3.8%</td>
</tr>
</tbody>
</table>

Source: Thomson Reuters FY 2010 Massachusetts Inpatient Database

NEBH leads the market with 5,638 discharges—an 11% market share that continues to increase.

In addition to routine and complex orthopedic care, the Baptist provides expert medical specialty care—particularly in cardiology, rheumatology, hematology and infectious diseases—to meet the many different health care needs of patients, enhance the outcomes of musculoskeletal surgery and ensure patients are receiving the best care.

As a teaching affiliate of Tufts University School of Medicine and collaborative teaching partner of Harvard School of Public Health and the Harvard School of Medicine, Baptist physicians are held to the highest academic and clinical standards. Orthopedic residents and fellows work side-by-side with experienced Baptist surgeons, learning about the latest advances in orthopedic surgery and devising plans for complex surgical cases. The significant patient volume at the Baptist gives physicians in training opportunity for extensive experience.

“Because it’s such a rich environment academically, we’re able to cross-pollinate and share ideas, have robust conferences that promote differences of opinion and alternative solutions, and share clinical experiences,” says James Bono, MD, vice chair, orthopedic surgery.

Part of the Baptist’s commitment to high quality care is ensuring that patients have a safe hospital experience. “We partner with patients on a plan of care and identify systems and solutions that ensure successful outcomes.” says Maureen Broms, RN, MS, vice president, health care quality, informatics and research.

Always striving to be better, the hospital prepared in 2011 to embark on the journey to Magnet Recognition, the highest designation of professional nursing practice. The hospital also launched a major initiative to convert to fully electronic medical records by 2013. This effort will enable complete and accurate information to be shared among physicians, other health care providers and patients. The Baptist also tracks surgical outcomes through a hip and knee joint registry to improve future medical decision-making and patient care.

**Rigorous Presurgical Screening Improves Patient Safety**

The Baptist approach to care is proactive rather than reactive: prior to surgery, staff identify patients at high risk of developing complications and create comprehensive, multidisciplinary plans to help ensure successful outcomes.

The preadmission screening team, composed of a nurse practitioner, physical therapist, nurse-anesthetist, pharmacist and case manager, carefully evaluates each patient’s readiness for surgery. Patients are considered at high risk if they have a history of cardiac disease, deep vein thrombosis (DVT) or pulmonary embolism, hematological problems or postoperative delirium.
The health care team also looks for conditions that might impair the body’s defense mechanisms or prolong healing, such as arthritis, diabetes and obesity.

**Preventing Infections**

The presurgical screening includes a nasal culture for MRSA (methicillin-resistant *Staphylococcus aureus*), a strain of bacteria that does not respond to commonly used antibiotics and leads to infections. If MRSA is found, patients receive treatment with targeted antibiotics prior to their admission to prevent postoperative infections.

“In 2006, we found that 50 percent of the patients who developed infections were positive for MRSA,” says Diane Gulczynski, RN, MS, CNOR, senior vice president of clinical operations and chief nursing officer. “We developed a program to eliminate it and have been extremely successful.”

The Baptist MRSA study, published in 2010 in the *Journal of Bone and Joint Surgery*, showed that screening patients before surgery was key to eliminating MRSA and reducing surgical site infections. The hospital’s protocol for MRSA screening has served as a model for other hospitals across the country.

When pathogens invade a newly implanted joint, the consequences can be devastating. Depending on the type of bacteria and severity of the infection, the patient may require weeks or months of treatment as well as additional surgery.

Although an uncommon occurrence, surgical site infections are a matter of primary importance at the Baptist, where surgeons perform thousands of operations annually. By virtue of its high patient volume—which builds clinical experience and expertise—the incidence of infection is extraordinarily low. In fact, studies confirm that specialized orthopedic hospitals with high annual operation volumes, like the Baptist, have the lowest infection rates.

**INFECTION RATES:**

<table>
<thead>
<tr>
<th></th>
<th>FY 2009</th>
<th>FY 2010</th>
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</thead>
<tbody>
<tr>
<td>Hip prosthesis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infections:</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Predicted Infections:</td>
<td>9.43</td>
<td>10.28</td>
</tr>
<tr>
<td>SIR*: .42</td>
<td>.20</td>
<td></td>
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**INFECTION RATES:**

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<thead>
<tr>
<th></th>
<th>FY 2009</th>
<th>FY 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knee prosthesis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infections:</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Predicted Infections:</td>
<td>11.17</td>
<td>12.29</td>
</tr>
<tr>
<td>SIR*: .81</td>
<td>.90</td>
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</table>

NEBH was recognized as one of two hospitals in the state with a significantly lower than expected incidence of infection for hip replacements.

NEBH’s ratio is better than expected, but even the slight statistical increase from ’09 to ’10 prompted careful scrutiny and standardization of preoperative skin preparations and dressings.


*Standardized Infection Ratio (SIR) is the fundamental infection measure used by DPH. SIR = Actual number of infections/predicted number of infections. SIRs above 1.0 indicate more infections than predicted, SIRs below 1.0 indicated fewer infections than predicted.
“We are a national leader in infection prevention,” says Broms. “We have only one-third of the national average for infections. Still, we’re working to get that number as close to zero as possible.”

In the fight against surgical infections, the hospital uses prophylactic antibiotics as well as antimicrobial skin preparations, gauze and sutures. In addition to a five-minute scrub before operating, surgeons now use a waterless, alcohol-based solution that works instantly and continuously to kill germs.

Each of NEBH’s 16 operating rooms on the main campus has laminar air flow—an advanced air filtration system—to eliminate airborne contaminants. And in the three newest operating rooms, even the hand plates and other metal trim have been treated with a bacteria-resistant coating. Additionally, during surgery, patients are wrapped in inflatable warming blankets, to avoid drops in temperature that can weaken body defenses.

Following surgery, more than 70 percent of patients go directly home, where there is less chance of infection. But for individuals who may be fragile or live alone, the Baptist partners with rehabilitation facilities who adhere to its infection-prevention and other care standards.

**CORE MEASURES**

**Surgical care improvement program—rate of antibiotic compliance**

![Graph showing compliance rates for antibiotic received within 1 hour prior to incision, appropriate antibiotic administered, and antibiotic discontinued within 24 hours after anesthesia.](image)

**Massachusetts hospitals average indicator score**

*Source: Patient CareLink, [http://patientcarelink.org](http://patientcarelink.org)*
Preventing Falls

When New England Baptist staff members gather for a “huddle,” they’re not talking about football plays. Instead, they’re putting their heads together to figure out how and why a patient fell in the hospital. The risk of falls is high in any orthopedic specialty hospital, where patients have impaired mobility. For orthopedic patients, falls can be extremely dangerous—causing a brand new hip or knee to dislocate, or a wound to open.

When someone falls—a rare occurrence at the Baptist—a nurse manager or coordinator, the patient’s nurse and a physical therapist conduct a full investigation at the site of the fall. After an analysis of the patient’s physical and mental status as well as an assessment of the environment, the team determines why the fall happened and what can be done to prevent a similar incident in the future.

Thanks to the fall prevention program, which began in 2005, the hospital’s fall rate has dropped to a level significantly below that of its peers.

“We cannot always predict how someone will react to hospitalization,” says Mary Sullivan Smith, RN, MS, associate vice president of patient care services. “For a time, the greatest number of falls occurred in middle-aged men who independently got out of bed, because they ‘did not want to bother the nurse.’”

To counteract this, nurses emphasize the importance of fall prevention during patient education classes. And during preadmission screening, patients are asked to sign a contract, agreeing not to get out of bed or walk without assistance. Once hospitalized, patients are reminded on a regular basis about the goal to keep them safe and minimize the risk of a fall.

Because most falls occur when patients are going to and from the bathroom, staff make hourly rounds to accommodate patient needs. Other preventive measures include bed alarms for patients who have...
compression devices on their legs, which add to their risk of falling, and the use of leg braces for patients who have had knee replacement, since pain control measures can weaken the quadriceps muscles.

In addition, an interdisciplinary committee meets every other week to discuss fall prevention. Led by a nurse manager, the director of inpatient rehabilitation services and a member of the health care quality staff, meetings include staff from nursing, physical therapy, occupational therapy and environmental services.

“There’s such openness about discussing these events,” says Sullivan Smith. “Transparency is a hallmark of our organization. We’re learning how we can prevent future falls.”

Preventing DVTs
From time to time, the media carry news about people experiencing deep vein thrombosis or DVT after airline travel. But the problem of blood clotting in the veins of the legs occurs more frequently due to surgery and bed rest than prolonged sitting.

“DVT and its first cousin pulmonary embolus—where a clot breaks off and goes from the leg to the lung—is a very high risk issue following orthopedic surgery, particularly on the lower extremities,” says Murray Bern, MD, chief, hematology at the Baptist and an anticoagulation expert. “If completely unmanaged, up to 70 percent of all patients could have this kind of event.”

“DVT and its first cousin pulmonary embolus—where a clot breaks off and goes from the leg to the lung—is a very high risk issue following orthopedic surgery, particularly on the lower extremities.”

— Murray Bern, MD, chief, hematology

Patient falls with injury
RATE PER 1,000 PATIENT DAYS

Preventing patient falls is a safety priority at NEBH, since impaired mobility puts all patients at elevated risk.

NEBH vs. Patient CareLink Surgical Peer Group*
*Source: Patient CareLink, http://patientcarelink.org

“LOWER is better

fy 2009

fy 2010

fy 2011

0.42

0.19

0.16

0.53

0.45

0.33

0.4

0.3

0.2

0.1

0.0

0.6

0.5

0.4

0.3

0.2

0.1

0.0

0.0
The orthopedic expertise at New England Baptist extends to nurses in the operating room, such as Theresa Corina, RN, CNOR.

DVT in the leg can lead to swelling, recurrent pain and eventually skin ulcers. But the real danger is when a blood clot travels through the bloodstream and lodges in a pulmonary artery. Known as a pulmonary embolism (PE), this condition causes chest pain, shortness of breath, bloody sputum (a mix of saliva and mucus) and, if severe, death.

To prevent this disastrous event, the Baptist’s preadmission screening team evaluates patients with DVT risk factors, such as obesity, inability to walk and metabolic syndrome. We also determine if patients, or other family members, have had DVT in the past or multiple unexplained miscarriages. Patients who need to be studied further undergo blood tests and, if a residual clot is suspected, ultrasound imaging.

Patients at high risk for DVT and PE receive preventive anticoagulants, such as heparin, warfarin, and a new group of drugs called Xa-inhibitors, along with a variety of other interventions following surgery. Bern is quick to point out, “What works is a composite picture of medications, early ambulation, pneumatic compression devices and compression stockings. You cannot conduct a pharmacologic program in the absence of these other tools and come up with the same results.”

This multi-prong approach is paying off. In 2011, our rate of DVTs and PEs was 0.14 per 100 discharges, well below the nation’s top decile performers.

### Readmission Rates Drop

The emphasis on quality care and patient safety is reflected in a continual decrease in readmission rates. The Baptist now has the lowest readmission rate for orthopedic discharges in Massachusetts.

“We achieve this,” says Broms, “by assessing patients accurately preoperatively and putting a comprehensive plan in place to reduce risk of complications. This helps ensure that everyone is well equipped to go home.”

### Unplanned readmissions for 30 days

<table>
<thead>
<tr>
<th>New England Baptist Hospital</th>
<th>Massachusetts 30 Day Surgical*</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2009 0.5</td>
<td>FY 2011 13.3</td>
</tr>
<tr>
<td>FY 2010 0.6</td>
<td></td>
</tr>
<tr>
<td>FY 2011 0.4</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Premier National Database

*Source: http://dartmouthatlas.org
Staying in the Game

DOUG FLUTIE

Doug Flutie had a remarkable career as a football quarterback. His accomplishments are legend: he threw one of the most famous passes in college football, won the Heisman Trophy, starred in the Canadian Football League (which named him Most Outstanding Player a record six times), and called plays for NFL teams including the Chicago Bears, Buffalo Bills, San Diego Chargers and New England Patriots. What is less well known is that during his last years in pro football, he began to feel sharp pain in his lower back.

After retiring at age 43, his back pain became constant and was accompanied by numbness in his legs. To relieve the pressure on his spinal nerves, he leaned forward at a 30-degree angle, instead of standing upright. His wife Laurie once pushed on his chest to help him stand straighter, but he collapsed in pain.

“The pain was brutal,” he says. Yet the veteran athlete did not allow it to sideline him; he continued to play advanced amateur basketball and baseball hunched over.

He consulted spine specialists who advised the standard treatment that included a spinal fusion, a procedure in which vertebrae are fixed together with rods and screws. Flutie knew this approach would limit his athletic endeavors.

NEBH orthopedic surgeon and sports medicine specialist Jack Tierney, DO, who once treated Flutie for a knee injury, recommended he see Stephen Parazin, MD, chief of spine surgery. Parazin, a member of the NEBH medical staff since 1999, specializes in complex spinal surgery and was named to Boston Magazine’s 2011 Top Doctors list.

“I also knew the reputation of the Baptist,” says Flutie. “People recommended it as the best hospital for low rates of complications and infections.”

Parazin diagnosed Flutie with spondylolisthesis, a degenerative condition in which one of the small bones in the spine slips forward, often pressing on nerves and making the spinal canal smaller. “While he probably inherited the tendency to develop the condition, it was likely brought on by the wear-and-tear of years of professional sports and physical activities,” says Parazin.

Sympathetic to the former football player’s plight, Parazin believed using a minimally invasive approach could extend the time Flutie could play competitive amateur sports by five to ten years.

“I knew if there was a person on the planet who could exercise himself away from a fusion, it was probably Doug,” says Parazin.

To relieve Flutie’s back pain, Parazin performed a laminotomy, a microsurgery that involves shaving off bits of bone to open the spinal canal. By using a tiny incision, he allowed Flutie to heal faster.

Thanks to minimally-invasive spine surgery, former football star Doug Flutie is pain-free and able to enjoy sports again—basketball, baseball, golf and tennis.
After his operation, Flutie started a rehabilitation program, following the Baptist’s protocols for spine therapy, with physical therapist Margie Lamir-Heger. She used stretching exercises and yoga to improve his strength and flexibility.

“Physical therapy built on what he already had—core strength,” says Parazin. “The main focus was on getting his abdominal and back muscles to an even higher level of conditioning to help support the spinal area.”

Eight weeks after his surgery, with Parazin’s approval, Flutie was playing flag football with his NFL buddies after the Super Bowl in Miami. While admitting to some discomfort, Flutie says he played fine and “had a blast.”

Now two years down the road, Flutie is standing straight again. He plays Yawkey League baseball, golf and tennis. “I’m back to playing basketball for three hours and running with the 20-year-olds,” the 49-year-old Flutie says.

In addition to his physical activities, he works as a college football analyst for NBC, plays drums for the Flutie Brothers Band and heads the Doug Flutie Jr. Foundation for Autism, a family-support organization that he and his wife Laurie co-founded after their son Dougie was diagnosed with the condition. The Fluties also have a 23-year-old daughter Alexa and, rounding out the family, three dogs—a dachshund, Yorkshire terrier and husky.

Flutie says he’s feeling better than he has in years, and he’s got his game back. “I would recommend this surgery to others,” he says. “Before it, I was in pain 24/7. It’s just been a blessing.”

As Flutie ages, the option of spinal fusion is still open. “If, in the future, it gets to the point that he has pain again and his lifestyle is impacted,” says Parazin, “we can certainly help him.”

“Physical therapy built on what he already had—core strength. The main focus was on getting his abdominal and back muscles to an even higher level of conditioning to help support the spinal area.”

—Stephen Parazin, MD, chief, spine surgery

Stephan Parazin, MD, chief of spine surgery, consults with Alfred Daniels, MD, anesthesia. Parazin performed a minimally-invasive spine procedure that relieved Doug Flutie’s pain and allowed him to continue to play competitive amateur sports.

Doug Flutie’s professional football career included playing for the New England Patriots.

Courtesy of the New England Patriots
Taking a Weight Off His Shoulders

MIKE GILL

When Mike Gill, an amateur weight lifter, began having hip trouble, he chalked it up to muscle strain. When the pain didn’t go away, he went for x-rays, which showed that his hip bone was rubbing against his upper leg bone and the cartilage that normally cushions the joint was gone. Gill, principal of Cohasset Middle/High School, thought, “I can live with it. I’m tough enough. I’ll get through this somehow.”

Yet the pain grew, so two years later, in 2006, he decided to have hip replacement surgery. Three days before his scheduled operation, he called to cancel. Gill admits he “chickened out,” daunted by the idea of the procedure, which replaces the worn bones and cartilage with an artificial ball-and-socket implant. A few months later, however, after repeatedly waking in the night cringing in pain, he went ahead with the surgery at a hospital near his home.

Only a few short years after the joint replacement, Gill started having hip pain again. By the spring of 2010, he had been forced to quit some of his gym activities, including his favorite—squat lifting, a type of barbell exercise. Within months, he had to abandon all lower body strength training.

“In November 2010, I began to notice that every time I got up from a chair, my hip was very, very painful,” says Gill. “The pain would sometimes subside after walking a few steps. I learned later that this was because the implant was shifting.”

The turning point came in December. After sitting in the bleachers, cheering on the Cohasset basketball team, Gill stood up at the end of the game to leave. But he soon realized he couldn’t walk—his hip joint implant had shifted out of position. So he waited until everyone left, all the while trying to wiggle his joint back into place, and then hobbled out.

The basketball game experience finally drove him back to the doctor. His surgeon ran some tests and referred him to Baptist orthopedic surgeon James Nairus, MD, for a second opinion.

An expert in complex cases, Nairus annually performs approximately 400 knee and hip joint replacements, about 80 of which are surgical revisions—operations to replace failed implants. With one look at Gill’s x-rays, Nairus could tell that the cup portion of the artificial joint, resting in the hip socket, had loosened. The implant, which should have lasted for 15 years, needed to be replaced.

Hip replacement surgery is more complicated the second time around. The operation takes longer and requires that the surgeon have more training and experience. “There is more bone loss,” says Nairus. “You’re dealing with less bone to put the implants on and going through previous scar tissue.”
Surgeons at New England Baptist Hospital perform more joint replacement operations than any other hospital in the region and are frequently the preferred orthopedists of choice for other orthopedists. Because the Baptist is dedicated to this type of surgery, all the equipment needed for even the most complex revisions is readily available. Our highly skilled, focused and experienced surgical teams offer patients the best opportunity for a favorable outcome, with fewer complications.

On a Thursday in February 2011, Gill had his hip replacement revision, which included a bone graft. The next Tuesday, with the aid of crutches, he went back to work, visiting classrooms and meeting with teachers and students. The following week, he headed to his gym and was pleased to find exercises he could do. After a month on two crutches, his growing strength allowed him to shed one. After three months he could do any activity, although he was advised against much running and jumping.

Pain free, Gill has returned to squat lifting. “I remember when this started in 2010, I thought I’d love to get back to the point where I could load up the bar and do a set without being in pain,” says Gill. “Now I’m back to lifting amounts almost equal to what I was doing prior to any hip issues at all. My surgeon at the Baptist has encouraged me to be as active as I would like—there are very few things that I need to avoid. At 57 years of age, I am hopeful that I have decades of strength and fitness training ahead of me.”

If his other hip needs to be replaced, Gill will be back at the Baptist. “My experience at New England Baptist was excellent,” he says. “At some point, I’ll probably need to have the other hip replaced, and I would go to Dr. Nairus in a minute. I’m not going to have any worries about having it done.”

After hip revision surgery, Mike Gill is back to squat lifting heavy weights.
To prepare for health care and payment reform, in 2011 New England Baptist began an accelerated push to redesign its care processes and strengthen its position as a value leader. Already recognized for its orthopedic expertise, the challenge was to identify areas for improvement.
Close examination of the way the hospital operates—figuratively and literally—has led to the development of innovative, cost-effective approaches to patient care. This has strengthened the hospital’s position as the region’s best value—the high quality and low-cost leader in the treatment of musculoskeletal diseases and disorders.

“We continually examine what we can improve upon,” says Diane Gulczynski, RN, MS, CNOR, senior vice president of clinical operations and chief nursing officer. “We look to enhance quality and reduce costs to assure great outcomes. We want our patients to leave the hospital with less pain, increased mobility and no untoward events, such as infections, falls or skin breakdown.”

Gulczynski is leading a care redesign program that is scrutinizing all elements of the system from pre-op to post-op to find ways to deliver care more effectively and efficiently. Using evidence-based medicine and groundbreaking treatments, Baptist staff are finding the best solutions to health problems and hastening recovery for patients. Care redesign is reducing process variability while improving the patient experience.

**Goal-Directed Care**

To optimize patient care and make the best use of precious resources, the Baptist is redesigning all aspects of its services. “We are working hard to transform this organization and to achieve best-in-class care—the Baptist Way,” says Trish Hannon, president and chief executive officer.

The analysis begins with asking: “Why do we do things this way? Are there better approaches?” At weekly and monthly meetings, physicians, nurses, nurse practitioners, pharmacists, physical therapists and case managers look at each phase of care and identify opportunities to improve.

The Baptist’s extensive review of care includes examining outcome comparisons, patient satisfaction scores, financials, clinical complications and costs related to readmissions. Gulczynski shares data and outcomes with hospital staff.

**Heath care-acquired skin breakdown**

**STAGES II–IV**

Nebh rates have come down consistently and are now lower than those of other Massachusetts hospitals.

NEBH vs. Patient CareLink Surgical Peer Group*

*Source: Patient CareLink, http://patientcarelink.org
Today most Baptist hip and knee replacement patients are discharged to home after 1 to 3 days in the hospital. Karen Schueneman, RN, BSN, ONC, and other staff help patients meet the clinical milestones necessary for discharge and develop a care plan for rehabilitation and recovery.

“This becomes a focal point of discussion and leads to new and better protocols,” Gulczynski says. “It is a very healthy process—each discipline drives its results. The culture at the Baptist fosters a spirit of inquiry and healthy debate.”

Innovations in Care
With a combination of minimally invasive surgery, advanced pain management and early mobilization, the Baptist has created an innovative, customized approach to hip replacement surgery. Care is personalized to the needs and goals of each patient—some leave the hospital in as little as one day, others stay two or three days. This shortened length of stay is made possible by the hospital’s extensive presurgical screening process, a goal-directed approach to care, and by excellent medical subspecialty physician support.

In addition to improving efficiency, this effort was driven by mounting evidence showing that shorter hospitalizations are better for patients. Less time in the hospital means a reduced chance of infection, a faster recovery in the comfort of home and a speedier return to normal activities.

Orthopedic surgeon Stephen Murphy, MD, pioneered short-stay hip replacement at the Baptist. In 2003, he created a new method of performing minimally invasive hip replacement surgery that leaves the major muscles intact. NEBH anesthesia staff furthered this advancement by introducing preemptive, multimodal pain management, which lessened postsurgical pain and promoted mobility.

In 2008 Murphy and Gulczynski started working together to identify opportunities to minimize delays and streamline the postoperative course for hip replacement patients. One strategy was to increase the number of physical and occupational therapists available in the hospital in the evenings to ensure that patients begin to move at the earliest possible moment after surgery. As a result of this early mobilization, patients were more motivated to reach their recovery goals. This led, in 2010, to the region’s first “24-hour hip,” when a Baptist patient was discharged 24 hours after surgery.

“Our goal is not to push patients beyond their capabilities, but to care for them in such a way that allows them to feel well enough to return home very quickly,” says Murphy. “None of the 192 patients who have gone home the day of surgery or the day after surgery have been readmitted since the program started in March 2010.”

The key elements of this effort—surgical techniques that reduce damage to surrounding tissues, refined pain management, early mobility and streamlined care systems—have since been adopted for all hip replacement patients.

In 2011 the Baptist built on this success. Initiatives included:

- **Making patients partners in their care.** Patient education classes, attended by patients prior to joint replacement surgery, now teach about our new approach to hip joint replacement.

“Through a variety of methods, we have been able to drastically reduce the amount of postoperative pain.”

— James Bono, MD, vice chair, orthopedic surgery

<table>
<thead>
<tr>
<th>LENGTH OF STAY IN DAYS</th>
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<tbody>
<tr>
<td>Hip replacement</td>
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<tr>
<td><strong>Hip replacement</strong></td>
</tr>
<tr>
<td><strong>FY 2009</strong></td>
</tr>
<tr>
<td>3.8</td>
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<tr>
<td><strong>FY 2010</strong></td>
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<td>3.4</td>
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<tr>
<td><strong>FY 2011</strong></td>
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Baptist radiologists have developed particular expertise in detecting subtle findings that can impact diagnosis and treatment.

- **Reducing postoperative pain.** Less pain means patients have a better experience and are able to get back on their feet sooner. “Through a variety of methods, we have been able to drastically reduce the amount of postoperative pain,” says orthopedic surgeon James Bono, MD. “We give pain medications locally, regionally and systemically so that patients wake comfortably in the recovery room. That lets them start standing and taking baby steps within hours of surgery.”

- **Reducing the need for medication postoperatively.** Early mobilization reduces pain and the need for patient-controlled analgesia (PCA)—self-administered narcotic pain medication. Avoiding narcotics, which can lead to feeling drowsy, confused or nauseated, increases the patient’s readiness for rehabilitation therapy and reduces the likelihood of falls.

- **Getting patients on their feet.** Hip surgery patients are starting to move as soon as they get to their hospital room. This simple step, which patients are able to accomplish, sets rehabilitation expectations.

- **Establishing discharge goals customized to the needs of patients.** By evaluating each patient’s medical needs, home situation and post-hospital resources, Baptist case managers are able to develop individualized discharge plans that allow patients to safely and confidently return home as soon as possible. More than 70 percent of patients go directly home.

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*Peer Group* vs. *Eastern Massachusetts* vs. NEBH

*Source: Press Ganey*
“When we can demonstrate that a process change lowers the chance of patient infection or gets people back to work earlier, that change will speak for itself, and care providers will want to adopt it.”

— David Mattingly, MD, chief, joint reconstruction

### Act II: Redesign of Knee Care

In 2011, Gulczynski partnered with David Mattingly, MD, chief, joint reconstruction, to launch a redesign initiative for care of knee replacement patients. They have assembled a team that is examining everything—from presurgical imaging to surgical approaches to implants and instruments to hospital care—looking for ways to improve the patient experience while reducing costs.

Their first step has been to cut back on the use of continuous passive motion machines. These devices, which automatically bend and straighten the knee, were previously prescribed postoperatively for all patients who received knee joint replacements. This year, the Baptist established criteria determining which patients needed CPM and which could exercise on their own. As a result, half of the hospital’s knee replacement patients now use active joint motion, which promotes better circulation, strengthens the muscles and lessens pain.

In the coming year, the team will search for more ways to provide optimal care. “When we can demonstrate that a process change lowers the chance of patient infection or gets people back to work earlier, that change will speak for itself, and care providers will want to adopt it,” says Mattingly.

Their comprehensive evaluation will include rehabilitation after discharge. “As we work with accountable care organizations, we need to be concerned about what happens after patients leave the hospital,” says Mattingly. “What are their home care needs? How many physical therapy appointments are necessary for a full return to normal activities?”

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**Length of Stay in Days**

**Knee replacement**

<table>
<thead>
<tr>
<th>Year</th>
<th>Length of Stay</th>
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<tbody>
<tr>
<td>FY 2009</td>
<td>3.9</td>
</tr>
<tr>
<td>FY 2010</td>
<td>3.6</td>
</tr>
<tr>
<td>FY 2011</td>
<td>3.5</td>
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Lower is better
Diane Gulczynski, RN, MS, CNOR, senior vice president of clinical operations and chief nursing officer, and Gail Sebet, RN, senior director, surgical services, regularly review clinical data and patient outcomes to assess results of early movement and therapy.

The Value Leader

New England Baptist Hospital is dedicated to delivering best-value health care, marked by quality, efficiency and innovation. By using a highly personalized approach, hospital staff can address even the most complex medical needs, while avoiding unnecessary testing or treatments.

“Our goal is improving quality while reducing costs,” says Richard Maloney, chair of the Baptist board of trustees. “This is only accomplished through reengineering. You have to look hard at how the processes are performed in order to cut out waste and stay viable.”

The Baptist’s performance has earned:
- Tier 1 ratings from insurers for excellent quality and cost-efficiency
- A Joint Commission Award for quality
- A national Press Ganey Summit Award for patient satisfaction

“We offer an enormous value in the marketplace for patients, payors and the community,” says Trish Hannon, president and CEO, “and we are making great efforts to continuously improve.”

In the coming years, the hospital anticipates increased demand for musculoskeletal services. According to data from the Agency for Healthcare Research and Quality, the number of knee replacements in women and men between the ages of 45 and 64 more than doubled between 1997 and 2009. This trend, related to increasingly active lifestyles, is expected to continue.

In addition, the U.S. Census Bureau projects rapid growth in the older population over the next 40 years as baby boomers cross into the over-65 age category. “Osteoarthritis, rheumatoid arthritis and degenerative spine disease are all health problems that an aging population faces,” Hannon says. “We’re working hard to be sure we have comprehensive and multidisciplinary programs to support each patient’s well-being. If joints deteriorate or mobility issues develop, we can address those through our programs.”

By redesigning its system of care, New England Baptist will be better able to respond to the future needs of the population. Ongoing dedication to the best quality care, highest patient satisfaction and lower costs will allow the hospital to thrive in the competitive health care market in the years ahead.

HIGHER
is better

Percent of patients who responded “Definitely Yes” they would recommend this hospital

<table>
<thead>
<tr>
<th>Year</th>
<th>Peer Group* vs. NEBH</th>
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<tr>
<td>FY 2009</td>
<td>69% vs. 79%</td>
</tr>
<tr>
<td>FY 2010</td>
<td>70% vs. 80%</td>
</tr>
<tr>
<td>FY 2011</td>
<td>71% vs. 78%</td>
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</tbody>
</table>

*Source: Press Ganey

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Operating Margin
A measurement of income derived from operating activities, operating margins allow investment in new opportunities and updated technologies.

Operating Margin EBIDA
(earnings before interest, depreciation, amortization)
Positive EBIDA is a measure of financial health and allows reinvestment in future capital needs.

Source: 2011 New England Baptist Hospital audited financial statements
Current Ratio
The current ratio demonstrates working capital, or the amount of current operating assets available to liquidate operating liabilities.

Debt to Capitalization
A measure of total long-term debt to equity (unrestricted net assets), debt to capitalization indicates the level of assets financed through debt, as opposed to owned.
2011 New England Baptist

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Susan M. Davidson, MD, Vice President of the Medical Staff
Richard A. Brodie, MD, Secretary of the Medical Staff
New Look, Same Mission
Launch of a new hospital logo and visual identity was one of the most apparent signs of the progress toward reaching our strategic goals and objectives. Bold and contemporary, the new symbol visually demonstrates our focus on delivering world-class musculoskeletal care. It is part of a comprehensive, multi-year marketing and brand strategy designed to reinforce the hospital’s position as the pre-eminent orthopedic and musculoskeletal provider in the region.

EMR Program Launched
A major initiative to transition to Electronic Medical Records (EMR) was launched with the selection of Siemens Healthcare’s Soarian EMR solution after a comprehensive evaluation process that involved clinical and administrative staff. When complete by 2013, the EMR will facilitate communication and collaboration among providers, improve efficiency by clarifying and streamlining administrative procedures, and allow patients easier access to their health information.

5 New Physicians Added in Core Service Areas
To meet the increased demand for Baptist care, five new physicians joined the medical staff:
Andrew Jawa, MD, orthopedic surgeon, shoulder, elbow and hand surgery
Nicolas Marcotte, MD, neurosurgeon, neurosurgery of the spine
Sumon Nandi, MD, orthopedic surgeon, hip and knee surgery
Harvey Smith, MD, orthopedic surgeon, spine surgery
Jeffrey Zarin, MD, orthopedic surgeon, hip and knee surgery

Physician and Provider Partnerships Established/Reinforced
Key strategic relationships with physician groups including Harvard Vanguard Medical Associates/Atrius Health and other providers expanded and deepened in 2011. These relationships will result in several new joint initiatives—both at the hospital and at offsite locations—in the coming year.

Payor Contracts
New England Baptist earned a spot on the best provider tier of each major health plan—recognition of our value leadership position for highest clinical quality, successful outcomes and best cost in orthopedic services.

Leadership Development
A multi-year program was introduced to enhance leadership development and professional advancement opportunities for administrative and physician leaders. Legendary service, long a treasured part of the Baptist culture, is being reinvigorated with a comprehensive assessment and redesign.

Strong Financial Performance
New England Baptist and its affiliates recorded a bottom line gain of $6.8 million, which represents a total operating margin of 3 percent. This is the 8th consecutive year in which a positive bottom line has been achieved, a noteworthy accomplishment in the current economic climate for health care organizations.

NEBH Awarded $2 Million to Support Construction of New Operating Rooms
2011 brought the largest foundation gift ever received by the hospital—$2 million from the Yawkey Foundation to help underwrite construction of a suite of three new operating rooms named in honor of Russell S. Boles, Jr., MD, a gastroenterologist who had a long and distinguished career at the hospital. The gift capped the Baptist Campaign for Care. The new operating rooms are state-of-the-art. Each is 650 square feet—the ideal size for modern orthopedic surgical space and double the size of the original NEBH operating rooms. More orthopedic surgery is performed at New England Baptist than at any other Massachusetts hospital, and more joint replacement surgery than all other Boston hospitals combined. The new operating rooms will allow continued expansion of orthopedic surgery to meet predicted needs over the next decade and beyond.

Campaign for Care
Transforming Lives the Baptist Way—The Campaign for Care successfully concluded on September 30, 2011. The $30 million fundraising campaign, capped off with a $2 million gift from the Yawkey Foundation, supported the creation of a new environment for surgery including the creation of additional OR suites; a new, enlarged state-of-the-art central sterile processing department; and new pre-op and PACU areas.

NEBH in the Community
NEBH supports a number of community initiatives, including a summer jobs program that introduces Mission Hill students to careers in health care and science. Together with the Maurice J. Tobin Community Center, the hospital supports endeavors to fight childhood obesity, including a Sports Camp for youth from the Mission Hill community. In 2011, NEBH sponsored 14 Mission Hill families.

25 Years as the Official Hospital of the Boston Celtics
New England Baptist and the Boston Celtics celebrated their 25th year of partnership with a multi-year renewal of the relationship. As the official and exclusive hospital of the Boston Celtics, the Baptist will continue to offer comprehensive medical services to the team under the direction of orthopedic surgeon Brian McKeon, MD, Celtics chief medical officer and head team physician; Frederick C. Basilico, MD, chairman of the department of medicine, and other Baptist physicians.

The Baptist and Celtics partner on initiatives focused on childhood obesity, physical fitness and health and wellness.
Thank you for your interest in our second annual report on quality and outcomes. I hope our results illustrate just how seriously we take our commitment to patient safety and service excellence. Dedication to exceptional care and striving for excellence are the hallmarks of our patient-centered philosophy.

As this report was being compiled, we've been analyzing early results for 2012. I'm very pleased that we are seeing even further reductions in length of stay and postoperative complications. This is a direct result of our goal to improve each day and to learn from our failures. Our ongoing, vigorous efforts to prevent postoperative infection, coupled with some new tools and strategies, are leading to further progress. A significant investment in a new electronic medical record will further improve the efficiency and quality of care we provide, by allowing seamless exchange of information among all caregivers.

In 2012, we will also embark on a journey, led by our chief nursing officer, to attain the nation's highest honor, Magnet Recognition. This recognition is the ultimate credential of nursing excellence and innovation. In addition, we will reengineer our Legendary Service Program. Led by our vice president of human resources, this audacious undertaking will examine every aspect of our culture to ensure we remain focused on the commitment of legendary service to all we serve.

As health care is changing, so are we—for the better.

Maureen Broms, RN, MS
Vice President, Health Care Quality, Informatics and Research